



NOAA
FISHERIES

**(Further) evaluation of potential
implications of subarea ABCs for
Bering Sea/Aleutian Islands
blackspotted/rougheye rockfish**

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Objectives

- Provide information for discussion relevant comments/questions posed in the July 2016 meeting. (This could be considered as part of our ‘evaluation’)
- Serve as a companion document to the workgroup report
- Ideally, this information (and the workgroup report) would be more fully discussed by the workgroup.

Some questions/comments raised in July spatial management workshop

- Adding additional subareas complicates the Total Allowable Catch (TAC)-setting process
- Adding more management subareas can potentially limit target fisheries, and reduce flexibility
- What would the effect of alternative subarea ABCs on the remaining portion of the stock?

Adding additional subareas complicates the TAC-setting process

- Disclaimer: Stock assessment scientists and the Plan Team do not recommend TACs
- Consider the number of BSAI stock-area combinations (referred to as 'boxes') for which we set an ABC

Year	Total stock-area "boxes"	TAC<ABC	TAC=ABC	Percentage TAC<ABC
2011	33	21	12	63.64
2012	33	21	12	63.64
2013	33	20	13	60.61
2014	34	20	14	58.82
2015	34	29	5	85.29
2016	34	31	3	91.18

Adding additional subareas complicates the TAC-setting process

- In recent years, 'boxes' with small ABC are more likely to have $TAC < ABC$

ABC size (t)	2011-2014		2015-2016	
	TAC<ABC	TAC=ABC	TAC<ABC	TAC=ABC
0 - 500	2	16	3	1
500 - 1000	5	1	7	1
1000 - 5000	12	14	5	6
5000 - 10000	5	14	10	0
10000 - 50000	30	6	23	0
50000 - 100000	8	0	4	0
100000 - 200000	4	0	2	0
200000 - 500000	12	0	4	0
500000 - 3000000	4	0	2	0

Adding additional subareas complicates the TAC-setting process

- From 1997-2014, the TAC for BSAI blackspotted/rougheye rockfish and shortraker rockfish was not lowered below ABC
- If TAC is set equal to the ABC, the impact on the TAC for other stocks is identical regardless of whether the ABC/TAC is partitioned by area

Adding additional subareas complicates the TAC-setting process

- The number of boxes in which $TAC < ABC$ has increased recently not from increased spatial management, but as a (presumably) desired outcome of TAC negotiations.
- If simplicity in TAC-setting was desired, we could return to having more stocks in which we set $TAC=ABC$
- Economists/managers may be able to tell us the causes for the recent changes in the TAC-setting.

Adding more management subareas can potentially limit target fisheries, and reduce flexibility

- Two types of flexibility
 - Flexibility to exceed a subarea TAC (without exceeding ABC)
 - Flexibility to exceed subarea ABC

Adding more management subareas can potentially limit target fisheries, and reduce flexibility

Some questions

- a) Given that the fishing industry appears to now be able to limit their catch of blackspotted/rougheye rockfish, to what extent would refining the MSSC to allow flexibility in subarea overages be addressing a problem that may not exist in the future?
- b) How much flexibility is allowed with subarea ABCs/TACs? A legal opinion would be useful.

What would the effect of a subarea management area be on the remaining portion of the blackspotted/rougheye rockfish stock?

- A harvest recommendation for only the Central AI would for 2016 would have been 324 t. The average catch in this area from 2006-2015 was 49 t.